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### REMARKS

Applicants appreciate the Office Action of August 18, 2005. Applicants have amended Claims 1 and 8 to address the section 112 rejections and, therefore, submit that Claims 1 and 8 and the claims that depend therefrom are in compliance with section 112. Applicants respectfully request reconsideration and allowance of the pending claims as many of the recitations of these claims are neither disclosed nor suggested by the cited references for at least the reasons discussed herein.

#### The Section 112 Rejections

Claims 1, 2, 4-8, 10, and 12-15 stand rejected under 35 U.S.C. § 112 as failing to comply with the written description requirement. *See* Office Action, page 2. In particular, the Office Action states that "there seems to be a conflict as to which capacitor dielectric layer serves to seal and protect the mold layer." *See* Office Action, pages 2-3. Applicants have amended Claims 1 and 8 as set out above to recite that the second capacitor dielectric layer seals and protects the mold layer. Accordingly, Applicants submit that Claims 1 and 8 and the claims that depend therefrom are in compliance with 35 U.S.C. § 112. Thus, Applicants respectfully request withdrawal of the section 112 for at least these reasons.

#### The Section 103 Rejections

Claims 1, 2, 4-8, 10 and 12-15 stand rejected under 35 U.S.C. § 103 as being unpatentable over United States Patent No. 6,274,426 to Lee (hereinafter "Lee"), United States Patent No. 5,023,683 to Yamada (hereinafter "Yamada") and United States Patent No. 6,573,553 to Nakamura (hereinafter "Nakamura"). *See* Office Action, page 3. Applicants note that the Office Action states that Claims 1, 2, 4-8, 10 and 12-15 are anticipated under 102(b) (See Office Action, page 3, paragraph 5), however, Applicants believe this was an inadvertent typographic error and have responded as if the Office Action properly stated that the rejections were under section 103. Applicants respectfully submit that many of the recitations of the pending claims are neither disclosed nor suggested by the cited references. For example, Claim 1 recites:

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An integrated circuit capacitor, comprising:  
an electrically insulating electrode support layer comprising a mold layer on an integrated circuit substrate and an etch stop layer on the mold layer and having an opening therein, the electrically insulating electrode support layer on the integrated circuit substrate;  
a U-shaped lower electrode in the opening;  
a first capacitor dielectric layer extending on an inner surface and outer portion of the U-shaped lower electrode;  
a second capacitor dielectric layer extending between the outer portion of the U-shaped lower electrode and the first capacitor dielectric between the outer portion of the U-shaped lower electrode and an inner sidewall of the opening and directly contacting a surface of the first capacitor dielectric layer opposite the U-shaped lower electrode, the second capacitor dielectric layer sealing and protecting the mold layer; and  
an upper electrode on the first capacitor dielectric layer.

Claim 8 contains similar recitations to the highlighted recitations. Applicants submit that at least the highlighted recitations of Claim 1 are neither disclosed nor suggested by the cited references.

The Office Action admits that Lee does not teach the second capacitor dielectric between the outer portion of the U-shaped lower electrode and the first capacitor dielectric and directly contacting a surface of the first capacitor dielectric layer opposite the U-shaped lower electrode as recited in Claim 1. *See* Office Action, page 4. However, the Office Action points to Yamada as providing the missing teachings. *See* Office Action, page 4.

In particular, the Office Action states:

Yamada teaches (e.g. Figures 1) to extend a second dielectric 9a so as to be above the upper surface of a support layer 7a to maintain the prescribed capacitance of the storage capacitor (Column 9 Lines 1 to 12). If the second capacitor dielectric of Lee *et al.* is extended as taught by Yamada then it would be between the outer portion of the lower electrode and said first capacitor dielectric and directly contacting a surface of the first capacitor dielectric layer opposite the lower electrode.

*See* Office Action, page 4 (emphasis in original). Applicants respectfully disagree.

Since the second capacitor dielectric 14c (or 14b) of Lee is formed by anisotropic reactive ion etching (RIE) of a silicon nitride layer 14a as discussed at column 4, lines 47-49 of Lee, the second capacitor dielectric 14a does not exist on the upper surface of a gate structure 9. Thus, it would be impossible to extend the second capacitor dielectric 14c (or

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14b) of Lee as taught by Yamada. Accordingly, the cited references cannot be combined as suggested in the Office Action to provide the teachings of Claim 1.

Accordingly, none of the cited references either alone or in combination disclose or suggest many of the recitations of Claim 1 set out above. Furthermore, there is no motivation or suggestion to combine the cited references as suggested in the Office Action. As affirmed by the Court of Appeals for the Federal Circuit in *In re Sang-su Lee*, a factual question of motivation is material to patentability, and cannot be resolved on subjective belief and unknown authority. See *In re Sang-su Lee*, 277 F.3d 1338 (Fed. Cir. 2002). It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 312-13 (Fed. Cir. 1983).

The Office Action states:

It would have been obvious to a person of ordinary skill in the art at the time of invention to extend the second dielectric so as to be above the upper surface of a support layer and, therefore, be between the outer portion of the lower electrode and said first capacitor dielectric and directly contacting a surface of the first capacitor dielectric layer opposite the lower electrode as taught by Yamada in the device of Lee *et al.* to maintain the prescribed capacitance of the storage capacitor.

See Office Action, page 4. This motivation is, at most, a motivation based on "subjective belief and unknown authority," the type of motivation that was rejected by the Federal Circuit in *In re Sang-su Lee*. In other words, the Office Action does not point to any specific portion of the cited references that would induce one of skill in the art to combine the cited references as suggested in the Office Action. If the motivation provided in the Office Action is adequate to sustain the Office's burden of motivation, then anything that would "maintain the prescribed capacitance of the storage capacitor" would render a combination obvious. This cannot be the case. Accordingly, the statement in the Office Action with respect to motivation does not adequately address the issue of motivation to combine as discussed in *In re Sang-su Lee*. Thus, it appears that the Office Action gains its alleged impetus or suggestion to combine the cited references by hindsight reasoning informed by Applicants' disclosure, which, as noted above, is an inappropriate basis for combining references. Furthermore, as discussed above, it would be impossible to extend the second capacitor

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dielectric 14c (or 14b) of Lee as taught by Yamada. Accordingly, the cited references actually teach away from the combination suggested in the Office Action.

Accordingly, Applicants respectfully submit that Independent Claims 1 and 8 are patentable over the cited combination for at these additional reasons. Furthermore, the dependent claims are patentable at least per the patentability of the independent base claims from which they depend. Accordingly, Applicants submit that the pending claims are in condition for allowance for at least the reasons discussed herein.

### CONCLUSION

Applicants respectfully submit that pending claims are in condition for allowance for at least the reasons discussed above. Thus, allowance of the pending claims is respectfully requested in due course. Favorable examination and allowance of the present application is respectfully requested. no motivation to combine the cited references as suggested in the Office Action.

Respectfully Submitted,

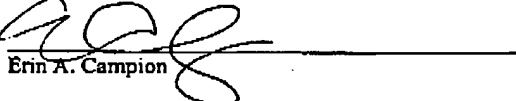


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